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# NPSNET: Inserting the Human into the Networked Synthetic Environment

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# **NPSNET: Inserting the Human into the Networked Synthetic Environment**

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## PROJECT GOAL

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***Study and implementation of the real-time, high-LOD, fully-articulated human in the large-scale, networked, virtual environment.***



# RECENT ACCOMPLISHMENTS

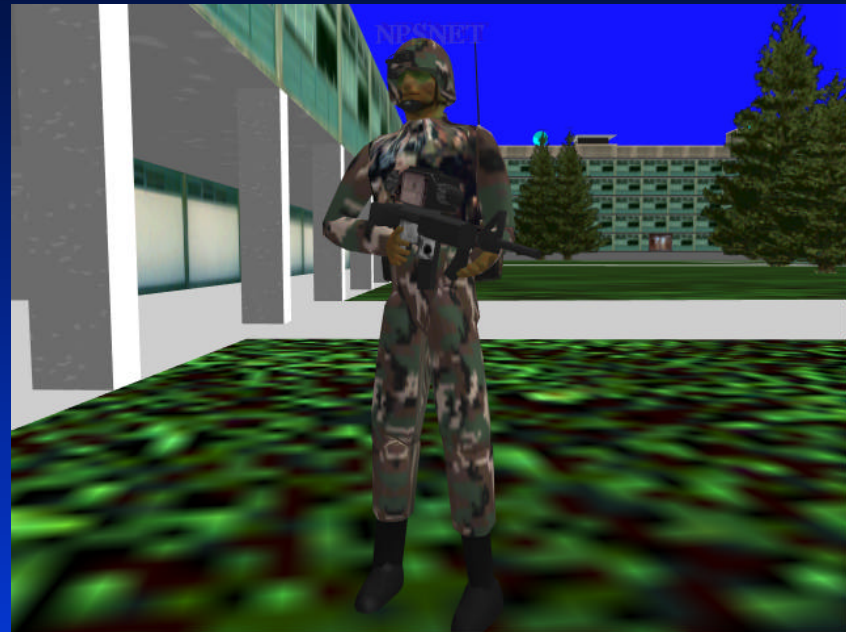
- Dynamic Tool Model and Networking
- High-resolution Hands
- Provided DIS capabilities for the AUSA ODT and VR Medi-Sim Demo
- NextGen Virtual Environment Toolkit





## RECENT ACCOMPLISHMENTS (2)

- Integrated DI-Guy from BDI
- Integrated Omni-Directional Treadmill
- Human Factors Analysis of the ODT
- Modeling, Virtual Environments & Simulation (MOVES) Curriculum Developed and Approved





## MISSIONS: Near Term

- High-Resolution Human Hands
- Continued development of NextGen VET
- Comprehensive study of lower-body exertion devices
  - UniPort
  - TreadPort
  - Omni-Directional Treadmill





## MISSIONS: Near Term (2)

- Studies on human interaction with the VE
  - Navigation
  - Human Exertion
  - Novel Input Methods
  - Acoustic Output
- Continued development of AVS, artificial vestibular system for high-resolution, full-body tracking.







## MLESTONES:Long Term

- Development of NPSNET V utilizing NextGen-VET
- Integration of ABMT systems via NextGen-VET
- Integration of LPS system for high-resolution, full-body tracking (RF tracker).
- Integration of Angularis artificial vestibular system for high-resolution, full-body tracking.







## MAILESTONES:Long Term (2)

- Full-up Human in the Synthetic Environment -- Real-time interaction with entities and objects in the VE with input devices allowing high resolution human motions and force feedback.





## **NPSNET Web Sites**

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### ***NPSNET Page:***

- <http://www-npsnet.cs.nps.navy.mil/npsnet>

### ***Modeling, Virtual Environments & Simulation Curriculum:***

- <http://www-npsnet.cs.nps.navy.mil/moves>